

PATENT  
0064738-0040

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Moy et al.  
Serial No. : Not Assigned (Continuation of 08/910,495)  
Filed : Herewith  
For : *Process for Producing Single Wall Nanotubes  
Using Unsupported Metal Catalysts and Single  
Wall Nanotubes Produced According to this Method*  
Art Unit : Not Assigned  
Examiner : Not Assigned

200 Park Avenue  
New York, New York 10166

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Victor Alvarez  
(Typed or printed name of person  
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**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Applicants take this opportunity to bring to the attention of the Examiner the following

listed documents:

1. U.S. Patent No. 4,572,813 issued February 25, 1986 to Arakawa.
2. U.S. Patent No. 4,876,078 issued October 19, 1989 to Arakawa, et al.
3. U.S. Patent No. 5,039,504 issued August 1991 to Kageyama, et al.
4. U.S. Patent No. 5,374,415 issued December 1994 to Alig, et al.



5. U.S. Patent No. 5,424,054 issued June 1995 to Bethune, et al.
6. United Kingdom Patent No. 2,248,230 published January 1992.
7. Japanese Patent No. 09 188 509 published July 1997.
8. Japanese Patent No. 06 322 615 published November 1994.
9. Qin, L.C. "CVD Synthesis of Carbon Nanotubes", J. Materials Science Letters, Vol. 16, No. 6, pp. 457-459 (3/1997).
10. Sen, R., et al. "Carbon Nanotubes by the Metallocene Route", Chem. Phys. Lett., Vol. 267, pp. 276-280 (3/1997).
11. Endo, "Grow Carbon Fibers in the Vapor Phase", Chemtech, pp. 568-576 (September 1, 1988).
12. Endo, et al. "The Production and Structure of Pyrolytic Carbon Nanotubes, (PCNTs)", J. Phys. Chem. Solids, Vol. 54, No. 12, pp. 1841-1848 (1993).
13. Ebbesen et al., "Large-Scale synthesis of carbon nanotubes", Nature, Vol. 358, pp. 220-222 (July 16, 1992).
14. Iijima, et al. "Pentagons, heptagons and negative curvature in graphite microtubule growth", Nature, Vol. 356, pp. 776-778 (1992).
15. Sumio Iijima, "Helical microtubules of graphitic carbon", Nature, Vol. 354, No. 6348, pp. 56-58 (November 7, 1991).
16. Dai, et al., "Single-Wall Nanotubes Produced by Metal-Catalyzed Disproportionation of Carbon Monoxide", Chemical Physics Letters, Vol. 260, pp. 471-475 (September 27, 1996).
17. Terrones, et al., "Controlled Production of Aligned-Nanotube Bundles", Nature, pp. 52-55, (July 1997).

18. Thess et al., "Crystalline Ropes of Metallic Carbon Nanotubes", Science, Vol. 273, pp. 483-487, (July 26, 1996).
19. Guo et al., "Catalytic Growth of Single-Walled Nanotubes by Laser Vaporization", Chemical Physics Letter, pp. 49-55 (1995).
20. Kiang, C-H. et al., "Carbon Nanotubes with Single-Layer Walls", Carbon, Vol. 33, pp. 903-914 (1995).

The listed references were submitted by Applicants or cited by the Examiner in parent U.S. Application Serial No. 08/910,495. Accordingly, copies are not provided herewith.

This Information Disclosure Statement is not a representation that the documents cited herein are considered most pertinent, or that a search has been undertaken, or that any of the cited documents is indeed prior art. The Examiner is invited to undertake an independent search.

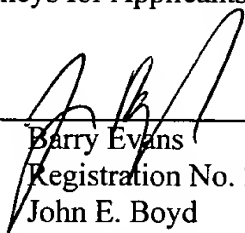
Pursuant to Rule 37 C.F.R. 1.97(b), an Information Disclosure Statement shall be considered by the Patent Office if filed before the mailing date of the first Official Action on the merits. Accordingly, no fee is believed necessary for consideration of this Disclosure. However, the Commissioner is hereby authorized to charge any fee required or credit any overpayment in such fees to Deposit Account No. 50-0297.

Applicants respectfully request that the Examiner consider and make of record the documents cited herein. Applicants further request that a copy of the Form PTO-1449, appropriately initialed by the Examiner, be returned to Applicants' attorney.

Respectfully submitted,

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Based on Form PTO-1449 (3/90)		ATTY. DOCKET NO. 0064738-0040		SERIAL NO. Not Assigned	
LIST OF REFERENCES CITED BY APPLICANT (Use several sheets if necessary)					
		APPLICANTS Moy, et al.			
		FILING DATE Herewith		GROUP Not Assigned	
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)					
			Sumio Iijima, "Helical microtubules of graphitic carbon", <u>Nature</u> , Vol. 354, No. 6348, pp. 56-58 (November 7, 1991).		
			Dai, et al., "Single-Wall Nanotubes Produced by Metal-Catalyzed Disproportionation of Carbon Monoxide", <u>Chemical Physics Letters</u> , Vol. 260, pp. 471-475 (September 27, 1996).		
			Terrones, et al., "Controlled Production of Aligned-Nanotube Bundles", <u>Nature</u> , pp. 52-55, (July 1997).		
			Thess, et al., "Crystalline Ropes of Metallic Carbon Nanotubes", <u>Science</u> , Vol. 273, pp. 483-487, (July 26, 1996).		
			Guo, et al., "Catalytic Growth of Single-Walled Nanotubes by Laser Vaporization", <u>Chemical Physics Letter</u> , pp. 49-55 (1995).		
			Kiang, C-H. et al., "Carbon Nanotubes with Single-Layer Walls", <u>Carbon</u> , Vol. 33, pp. 903-914 (1995).		
EXAMINER			DATE CONSIDERED		
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

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